

75th MORSS CD Cover Page

UNCLASSIFIED DISCLOSURE FORM CD Presentation

12-14 June 2007, at US Naval Academy, Annapolis, MD

Please complete this form 712CD as your cover page to your electronic briefing submission to the MORSS CD. Do not fax to the MORS office.

Author Request (To be completed by applicant) - The following author(s) request authority to disclose the following presentation in the MORSS Final Report, for inclusion on the MORSS CD and/or posting on the MORS web site.

Name of Principal Author and all other author(s):

Mark V. Proctor

David K. Hegland

Phone: 703-448-6081

Principal Author's Organization and address:

11790 Sunrise Valley Drive

Reston, VA 20191

Fax: 703-245-4706

Email:

mproctor@wbbinc.com

dhegland@wbbinc.com

Original title on 712 A/B: **Billet Analysis Tool (BAT) – Manpower Analysis Beyond the FYDP**

Revised title: **Same**

Presented in: **WG 20**

**This presentation is believed to be:
UNCLASSIFIED AND APPROVED FOR PUBLIC RELEASE**

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 01 JUN 2007		2. REPORT TYPE N/A		3. DATES COVERED -	
4. TITLE AND SUBTITLE Billet Analysis Tool (BAT)				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) WBB Consulting 11790 Sunrise Valley Drive Reston, VA 20191				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited					
13. SUPPLEMENTARY NOTES See also ADM202526. Military Operations Research Society Symposium (75th) Held in Annapolis, Maryland on June 12-14, 2007, The original document contains color images.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 21	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



WBB CONSULTING
Solutions and Support for a Changing World

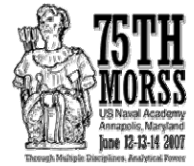


Billet Analysis Tool

***75th MORSS
WG 20
12 June 2007***



Why the Billet Tool

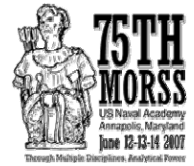


- **Total Force Manpower Management System (TFMMS) is Navy's single, authoritative source for manpower data**
 - Billet base POR – used as basis for Enlisted/Officer programmed authorizations (EPA/OPA), military detailing and civilian FTS
 - Mainframe based – not easily accessible by most users
- **More user-friendly application needed ...**
 - Desk top capability, NMCI compatible, populated with commonly used TFMMS fields, updated periodically
 - Needed capability to quickly produce manpower estimates and excursions for Total Force Planning within and beyond the FYDP
- **Proof of Concept conducted Mar - Jul 2006 by WBB, CNA, and OPNAV staff**
 - Application programming enhancements/data indexing conduct by WBB
 - User survey conducted in October to identify BAT strengths, weaknesses, and recommendations for future upgrades

Unique billet code
Unit assigned
Billet title
Type (Active, Reserve, Civilian)
Appropriation (MP, OMN, etc)
Designator (officer)
Grade (officer)
Rate (Enlisted)
Rating (Enlisted)
PNEC
Pay Plan
Authorization (by FY)
Funding (by FY)
Others



What is the Billet Tool



- Quick-reaction, user-friendly, agile, Microsoft Access desk-top application
- Manipulates, sorts, filters “selected” **TFMMS data**
- Allows insight into **Enterprise billet allocation**
- Applies **Programming and Composite rates** for costing analysis
- Groups UICS by **functional categories**
- Contains “**like-UICS**” developed from PSMDs (CVN-21, DD(X)) to allow analysis beyond the FYDP
 - User must apply the 30-YR Shipbuilding Plan
 - Tool can be expanded with additional “like-UICs” for future force structure analysis across Enterprises
 - 20-YR Aircraft Procurement Plan

BAT inputs

Build Scenario

Enter scenario name
Retrieve scenario
Add/Sub Activities
Add
Subtract
Scaling factor: 1
UICs to scenario
Clear scenario

Utilities

Find
Find Filter:
Sort: ☐ Desc
Activity Preview (billets):
Sum BA x FY
Sum Req x FY
Filter
Help

Date of Billet File:
October 2006

Define Output

Req or BA
☐ Req
☒ Auth
FY for billets: FY2
FY for dollars: FY2

Output

Run scenario
Report
Tot billets x FY

Activity Category	Activity Sub-Category	Activity T	SHORT_NAME	ALIC	milReq	divRe
			CFLSWD ASD NOLA	54076	37	
			SLCDET SD FLT TT	4610A	37	
			LCS LM2 WHITE CR	20135	40	
			SLC S GU FLT TT	4611A	3	
			S SR ENL ACAD	44246	4	
			LCS GD2 BLUE CRW	20134	40	
			LCS LM2 GOLD CRW	20131	40	
			LCS LM2 BLUE CRW	20130	40	
			DD X 2	20121	114	
			DD X 2	4424A	63	

Scenario Activities

name
+1 LCS GD2 BLUE CRW
+1 LCS LM2 BLUE CRW
+1 LCS LM2 GOLD CRW
+1 LCS LM2 WHITE CR

Reporting

Options
Req/Auth: ☐ Req, ☒ BA
Filter UICs: ☐
query type

Field: [Manpower type], [ICAW], [ICCA], [ICCA_WFS], [CA_FUNC_Title], [Claimant], [Sea_shore], [Rate_Desig], [PNEC], [EMC], [Community], [Paygrade], [SNEC], [CFY], [FY1]
Selected fields: [Manpower type], [ICCA], [Claimant], [Sea_shore], [Rate_Desig], [Community], [Paygrade], [PNEC], [CFY], [FY1], [P\$CFY], [C\$CFY], [P\$FY1]
Select fields, Clear, RUN REPORT



What the Billet Tool Delivers



- **Analysis: Execution Year, POM, Long Term**
 - Formatted reports
 - User driven/developed reports
 - User selected raw data (export to Excel for further analysis)

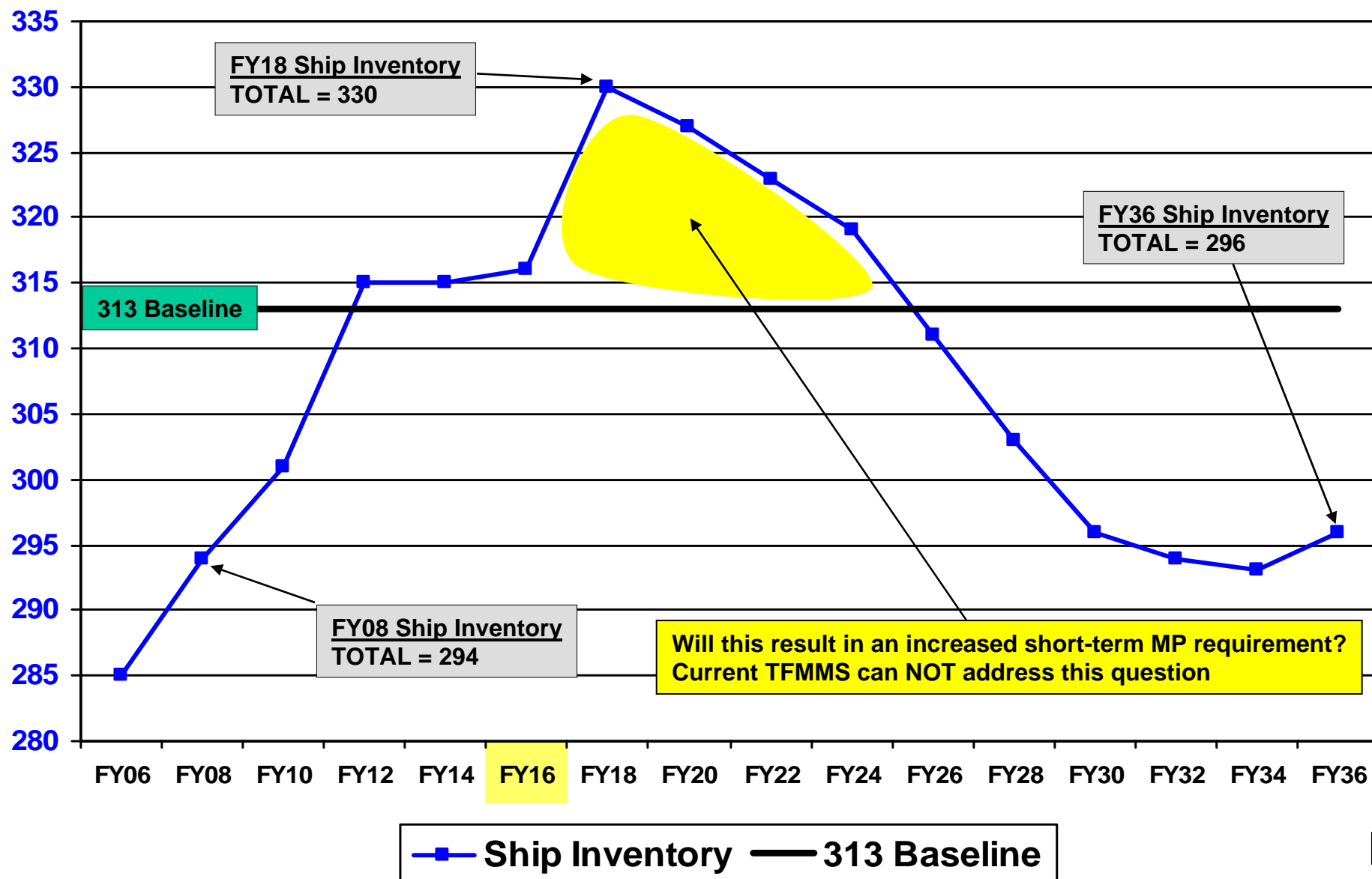
- **Ability to analyze/break out by:**
 - AC, RC, FTS, Civilian
 - Rating/NEC/designator/pay grade
 - Programming and Composite Rate calculations (\$\$\$)
 - IGCA coding
 - Enterprise and BSO data
 - Sea/Shore coding
 - Geo-location
 - UICs grouped by function (38 functions)

- **Monthly TFMMS refresh**



BAT Example

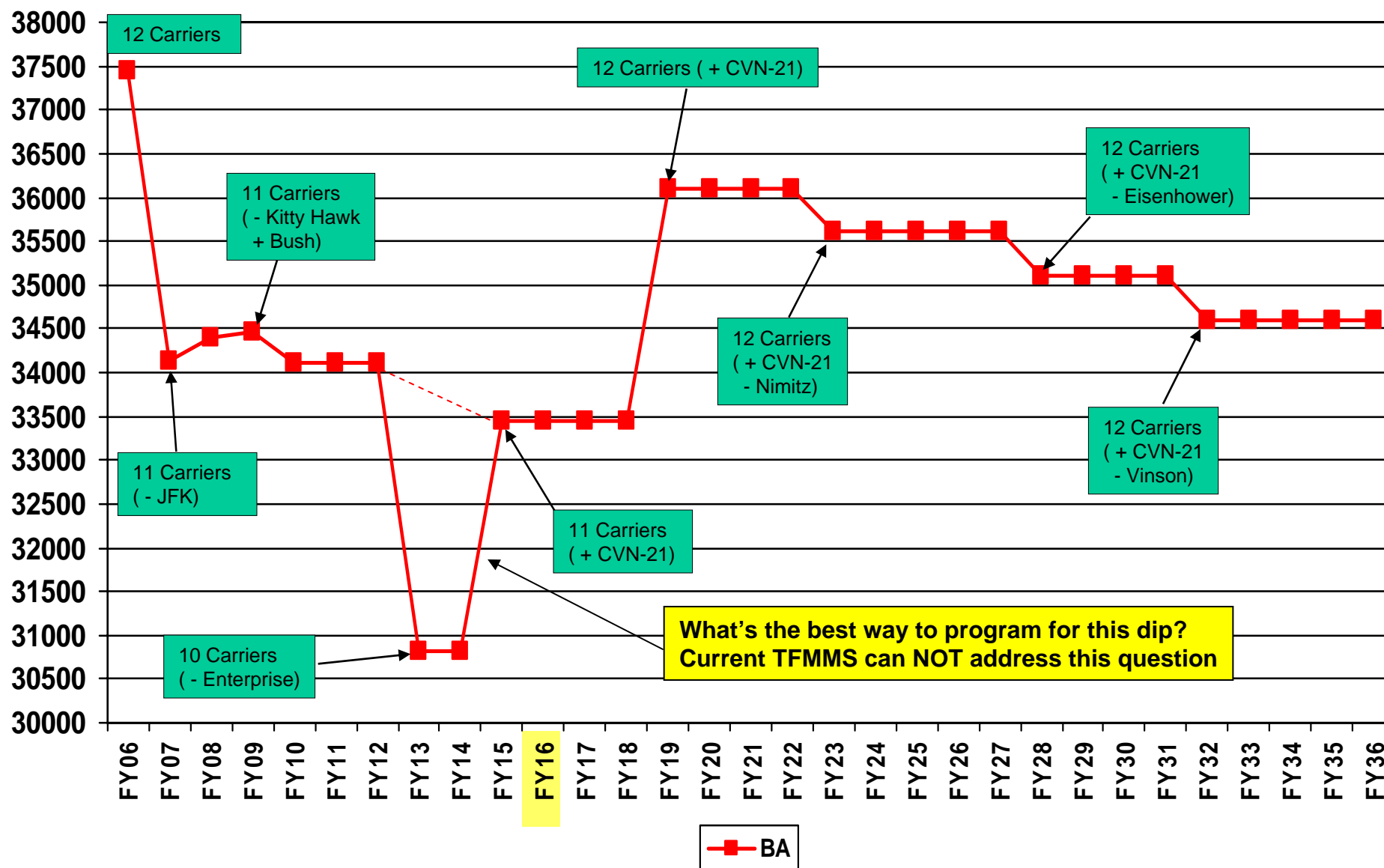
30-Year Shipbuilding Plan





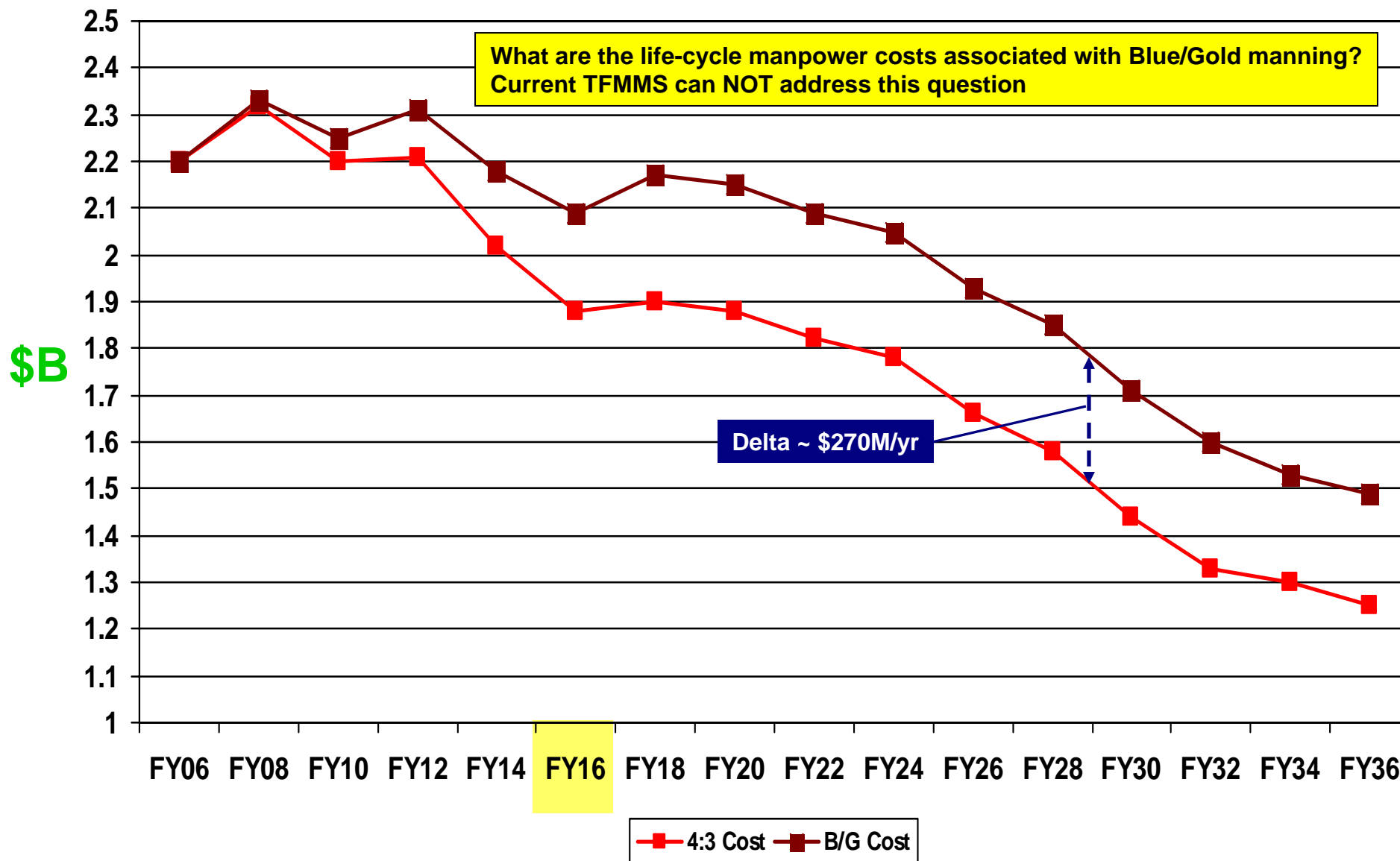
BAT Example

Carrier BA Beyond the FYDP





BAT Example: Surface Combatant Manpower Costs





BAT Example

Community Management



Scenario example – Analysis of the ET(SW) rating/EMC

- What is the ET FY13 BA by pay grade, broken down into Sea/Shore billets?
- How many ET billets are in the Naval Installations Command (CNI) ?
- What is the annual cost of the ET community (in FY13 Composite Rate \$\$) to the CNI Enterprise?
- Are there any ET billets coded for “Esprit de Corps?”
 - What percentage of Navy-wide shore billets are coded Esprit de Corps?
- How many ET billets are coded for Sea/Shore Rotation?
- How many ET billets have a PNEC of 1321?
- In FY13, how many ET billets are in the BUMED and PACFLT claimancies?
- How many shore billets would have to be eliminated/civ-sub'd in FY13 to move the ET community to a 4:3 Sea/Shore ratio?
- Of those needed for elimination, how many can realistically be looked at for review (from an IGCA perspective)?





BAT Example

Scenario Answers



- ✓ CNI ET Billets = 349
- ✓ Annual ET cost to CNI = \$25.6M
- ✓ ET Esprit de Corps billets = 25
- ✓ % Navy-wide shore billets coded Esprit de Corps ~4% (6771 billets)
- ✓ ET billets coded for rotation = 946
- ✓ ET billets w/1321 PNEC = 47
- ✓ FY13 ET billets in:
 - BUMED Claimancy = 39
 - PACFLT Claimancy = 1964
- ✓ Must eliminate/civ-sub 662 shore billets to get the ET rating to a 4:3 overall sea/shore ratio
- ✓ Billets coded X, R, P, J, and K = 1363

TFMMS can NOT address many of these questions

With BAT, answers took less than 15 minutes to obtain ...

- 3 minutes to query the database
- 10 minutes to build this slide

ETSW (FY13)	Sea Billets	Shore Billets	Total
E-3	13	89	102
E-4	1722	823	2545
E-5	1005	1160	2165
E-6	562	816	1378
E-7	275	432	707
E-8	58	68	126
E-9	28	21	49
Total	3663	3409	7072



BAT Customer Survey



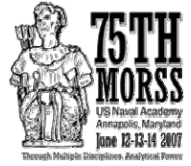
17 question, web-based survey provided to selected BAT users (Fleet & Staff Manpower AOs)

- **Grading of BAT characteristics/features**
 - Importance
 - Performance
 - Satisfaction
- **Grading of training and Help Desk**
- **Open field inputs**
 - Future upgrades
 - Problem areas
 - Other comments
- **Recommendations**

**93% Survey
Response Rate**



What We Found

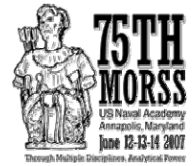


- ✓ **BAT is being utilized to accomplish tasking and is meeting or exceeding the vast majority of users expectations**
- ✓ **Strong correlation between importance and performance of BAT features, leading to a high degree of user satisfaction**
- ✓ **Help Desk and Users Manual shortcomings partially mitigated by experienced users, highly rated training, and ease of navigation of BAT**
- ✓ **Many suggestions for upgrades**

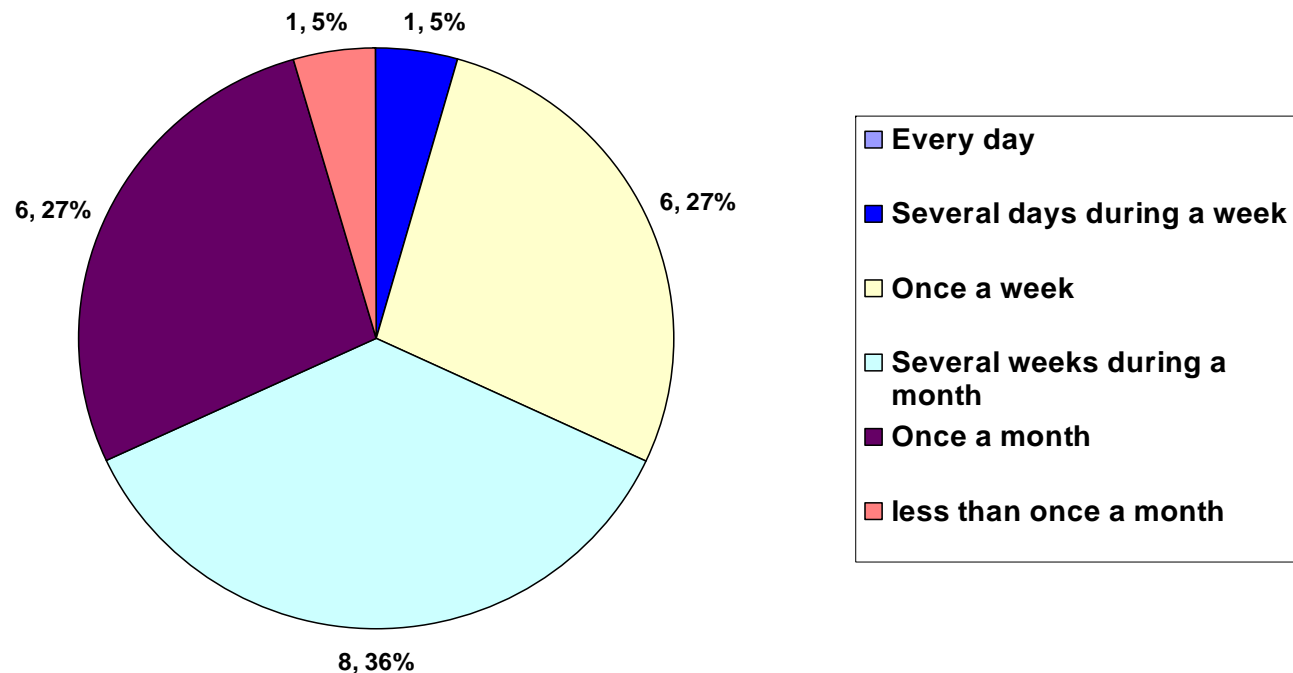


BAT Customer Survey

Frequency of Use



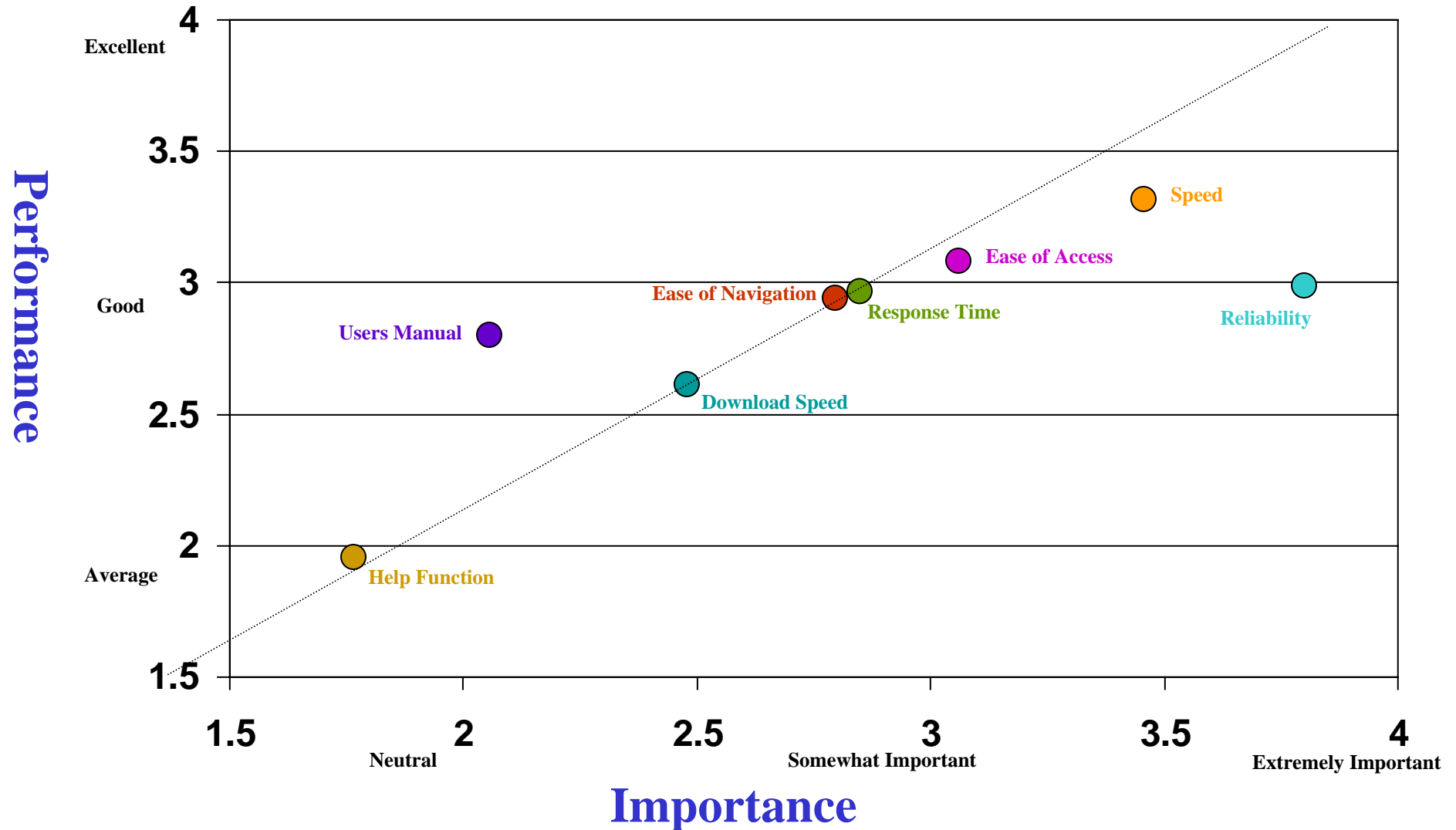
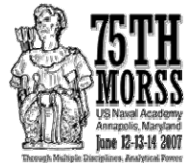
68% of respondents used BAT more than once per month with 32% using BAT at least once per week





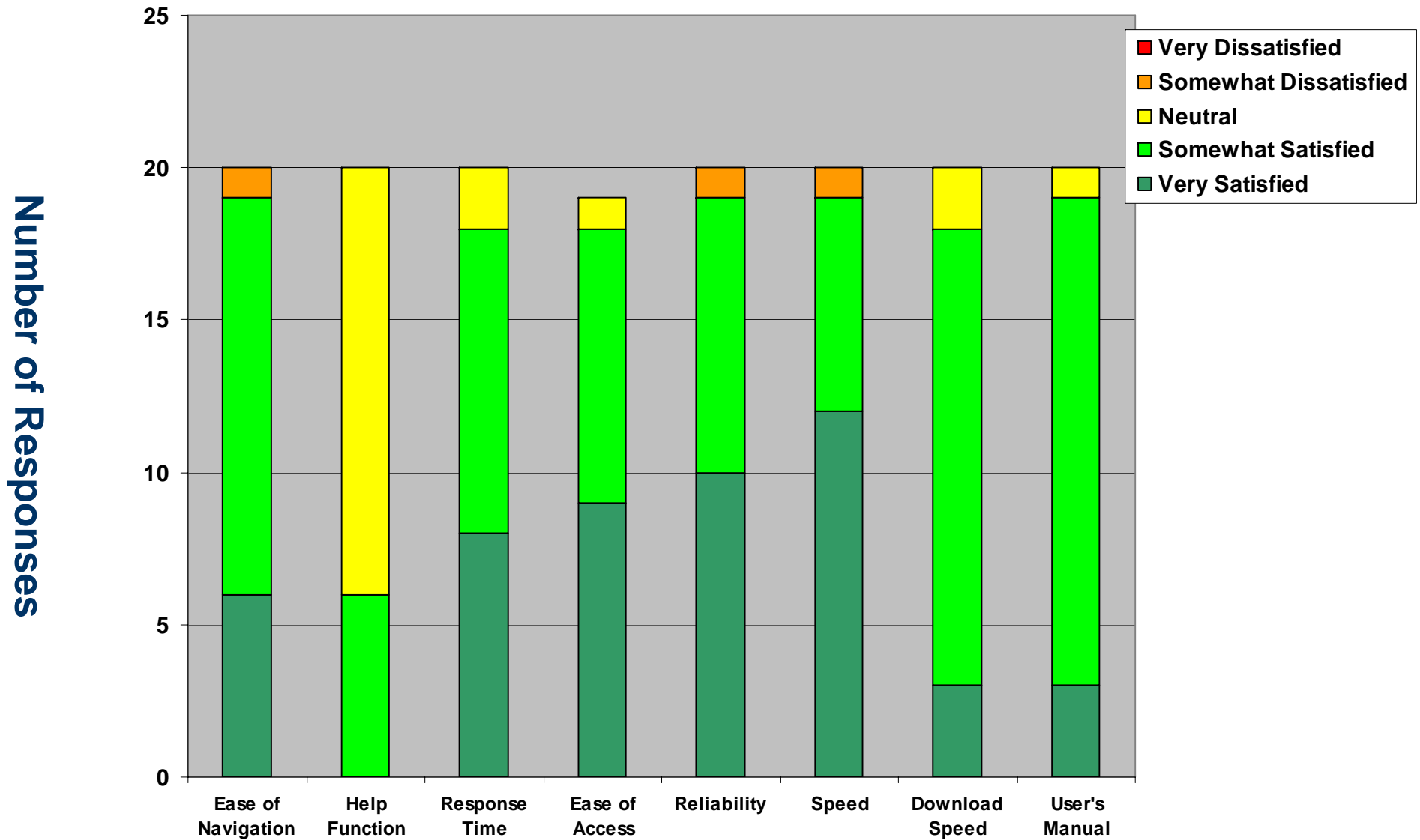
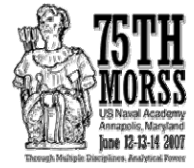
BAT Customer Survey

Importance vs. Performance





BAT Customer Survey Satisfaction

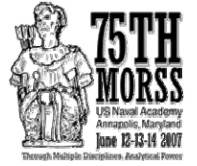




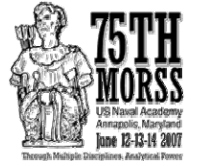
BAT Future...



- **Select, prioritize, and implement upgrades resulting from user survey**
- **Expand distribution to other users**
 - **Navy:**
 - **Community Managers**
 - **Budget Submitting Offices**
 - **Fleet Staff**
 - **Others:**
 - **USCG (Manpower Requirements Data Analysis Tool – MRDAT)**
- **Phase II**
 - **Establish correlations between force structure and shore infrastructure**
 - **Enhance capabilities based analysis/costing**
- **Applications**
 - **Mil-to-Civ conversions (\$\$\$/impacts)/Competitive Sourcing analysis**
 - **Home Basing/Stability analysis**
 - **Disaster planning analysis – geographical location of forces**
 - **Manpower costs of new systems**
 - **Training and Education requirements analysis**
 - **Sizing the Navy**



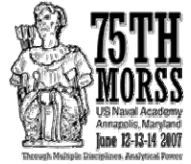
Questions?



Backups and Links



Functional Categories (~6000 UICs)

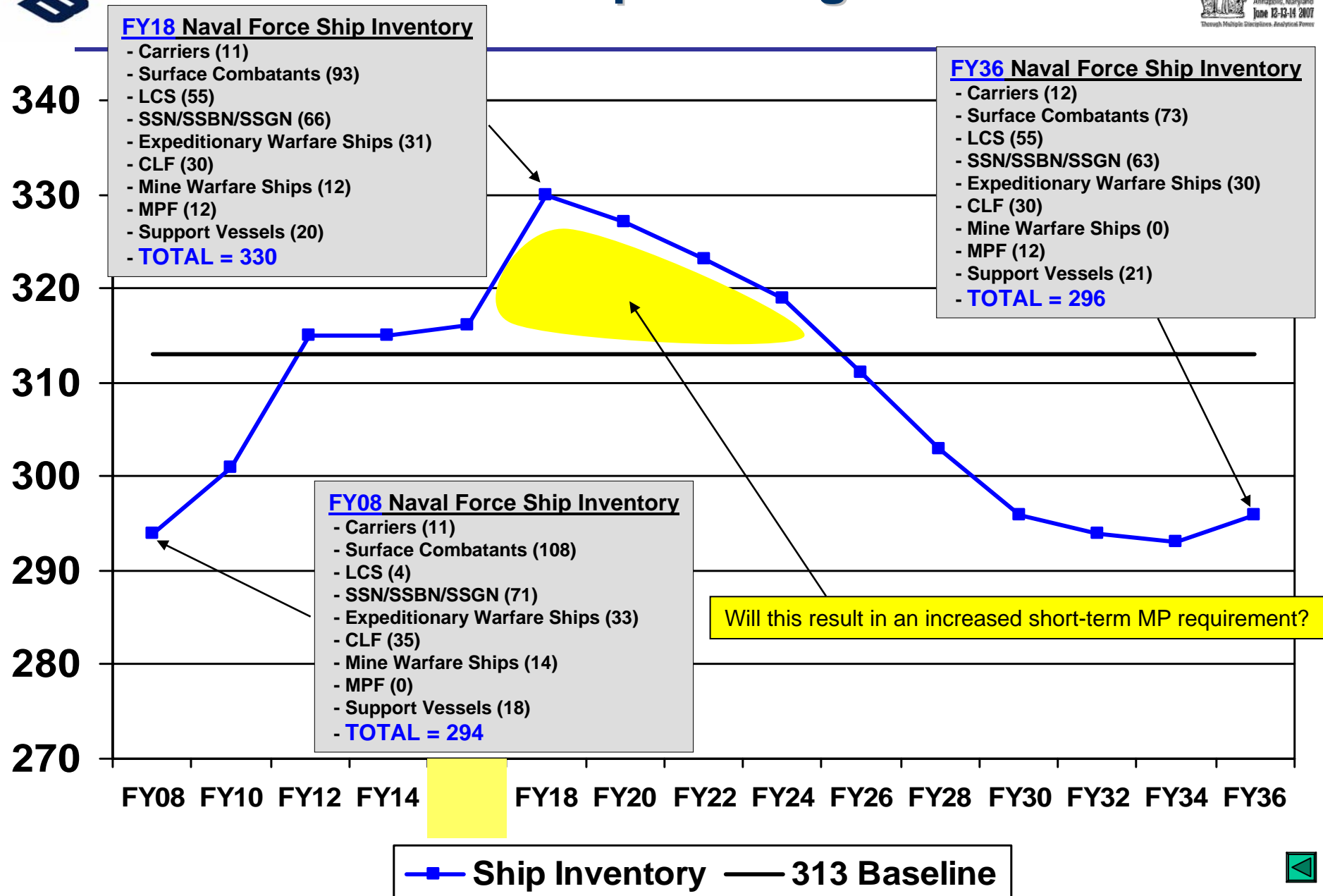


-
- Aviation Squadrons
 - Communications
 - Computer Support
 - Construction Forces
 - DoD Activities
 - Expeditionary Forces
 - Facility Engineering
 - Fleet Command & Staff
 - Headquarters
 - Individuals Account
 - Intelligence
 - Investigation
 - Joint Commands
 - Legal
 - Maintenance
 - Marine Corps Support
 - Medical
 - Meteorology & Oceanography
 - Military Sealift
 - Ocean Surveillance
 - Operational Bases
 - Other
 - Personnel
 - Recruiting
 - Reserve Activities
 - Security Group Activities
 - Ship: Combat
 - Ships: Support
 - SPEC WAR
 - Submarines
 - Supply
 - Support - MISC
 - Support Activities
 - Support Services
 - Technical Activities
 - Training & Education
 - US GOVT DEPT
 - Unknown





30-Year Shipbuilding Plan





Manpower Classification Codes



A Direction and Control of Combat and Crisis Situations	
B Exemption for Combat Support and Combat Service Support due to Operational Risk	
D Exemption for Manpower Dual-Tasked For Wartime Assignments	
E Civilian Authority Direction & Control	F Military-Unique Knowledge & Skills
G Exemption for Esprit de Corps	
H Exemption for Continuity of Infrastructure Operations	I Military Augmentation of the Infrastructure During War
J Exemption for Civilian & Military Rotation	K Exemption for Civilian & Military Career Progression
L Exempted by Law, Executive Order, Treaty or International Agreement	
M Exempted by DoD Management Decision	
P Pending Restructuring of Commercial Activities	
R Subject to Review for Competition Under OMB Circular A-76	
W Non-Packageable Commercial Activity	
X Alternatives to OMB Circular A-76	
Z Other Manpower (Navy Only)	

